GOLDEN STATE ENVIRONMENTAL, INC.
Cultural, Environmental & Litigation Support Services
Certified SBA 8(a) / DVBE / WBE / SBE

15051 Leffingwell Road, Suite 102, Whittier, CA 90604
P.O. Box 3706, La Habra, CA 90632-3706
(562) 691-8284 Phone / (888) 356-1250 Fax

February 6th, 2006

White Mountain Estates, LLC
332 West Howell Avenue
Ridgecrest, CA 93555

RE: Preliminary Hydrogeologic Investigation, 72-Hour Pumping and Recovery Test, White Mountain Estates – Phase 2, Chalfant Valley, Mono County, California

Attn: Robert (Bob) Stark

Dear Mr. Stark:

Golden State Environmental, Inc. (GSE), is pleased to provide White Mountain Estates, LLC (WME), the results of a 72-hour pumping and recovery test that was performed in January of 2006. The purpose of the test was to collect data to further define the hydrogeologic conditions at the White Mountain Estates-Phase 2 site development located in Chalfant Valley, Mono County, California. These data supplement the previous preliminary descriptions of hydrogeologic conditions; recharge estimates, and the California Environmental Quality Act (CEQA) documentation specific to Section VIII - Hydrology and Water Quality[a,b].

Background

An initial well (WME Well #1), was installed in Lot B of the upper proposed Phase 2 development from July through September of 2004; some delay in well installation was experienced due to equipment breakdown (Figure 1). Following installation, a 24-hour pumping and recovery test was performed on September 10th and 11th, 2004. A report was submitted on May 10, 2005[a]. The report was reviewed by AMEC Earth & Environmental, Inc. (AMEC) on behalf of the County of Mono. Thereafter, comments were provided to ***GSE***.

A second well (WME Well #2), was installed in Lot 12 of the lower part of the proposed Phase 2 development during June of 2005 (Figure 1). The purpose of WME Well #2 was to expand the water supply provided by WME Well #1, in addition to providing data for evaluation of the increased reliability of the water supply for the proposed development. Following installation, a 24-hour pumping and recovery test was performed on July 6th and 7th, 2005. A report was submitted on August 15th, 2005[b]. This report addressed comments

[a] ***Golden State Environmental, Inc.***, 2005, Preliminary Hydrogeologic Investigation, White Mountain Estates - Phase 2, Chalfant Valley, Mono County; May 10th.
[b] ***Golden State Environmental, Inc.***, Addendum to Preliminary Hydrogeologic Investigation, White Mountain Estates - Phase 2, Chalfant Valley, Mono County; August 15th.

by AMEC to the previous May 10th, 2005 report, as well as providing information concerning the installation and testing of the second well.

Following submittal of the August 15th, 2005 report to the County of Mono, and subsequent review and comment by AMEC, a teleconference was held on November 17th, 2005 to discuss AMEC's comments and concerns regarding the proposed site development and its potential impact on water resources. As a result of AMEC's concerns regarding insufficient aquifer parameter data obtained from the previous two individual 24-hour pumping and recovery tests, it was decided that a longer term 72-hour pumping and recovery test, which would include an observation well should provide the information necessary to allow for the County of Mono to issue a permit. This report presents the findings of the 72-hour pumping and recovery test.

Site Hydrogeologic Conditions

The proposed WME Phase 2 development is located within the Tri-Valley area, in Chalfant Valley. Chalfant Valley is bounded on the east by the White Mountains and on the west by sloping lava and pyroclastic flows of the Bishop Tuff. A system of faults, the White Mountain Fault Zone, traverses north-south through the WME Phase 2 upper development and generally defines the eastern margin of the alluvial valley groundwater system[c].

The geology in the vicinity of the proposed WME Phase 2 development is characterized by alluvial fan deposits that are superposed over valley fill alluvium[d], of Quaternary age (Figures 3a and 3b). For a more thorough description of the hydrogeologic conditions in the vicinity of the proposed WME development, refer to the previously submitted "Preliminary Hydrogeologic Investigation, White Mountain Estates-Phase 2, Chalfant Valley, Mono County" report by ***GSE*** dated May 10th, 2005.

72-hour Aquifer Test

On January 5th, 2006, a 25-hp submersible pump was set in WME Well #2 (Figure 2). The intake of the pump was set at a depth of 276 feet below the top of the casing, corresponding to 21 feet below the top of the screen. A sounding tube was placed into the well, to allow for unobstructed access for water level measurements during the test. WME Well #1, located 770 feet east of and uphill from the pumping well, was designated as an observation well for purposes of the test.

The pumping test was initiated at 0830 hours on Friday, January 6th, continuing through 0830 hours on Monday, January 10th, 2006. The duration of pumping was 72 hours. Groundwater was discharged at a constant rate of 200 gallons per minute (gpm), via 3-inch diameter galvanized steel pipe and flexible hose to an existing surface drainage. Adjustments to maintain the 200 gpm flow rate were made, as necessary, by opening a gate valve downstream of a mechanical flow meter as water levels in the well declined with time; the flow meter (3-inch) was capable of reading to 1-gpm increments.

---

[c] CDMG, 1985 and 1992.

[d] Danskin, Wesley R., 1998, Evaluation of the Hydrogeologic System and Selected Water-Management Alternatives in the Owens Valley, California; U.S. Geological Survey Water-Supply Paper 2370, pages 13-20.

Upon pump shut down, water level recovery was monitored in both the pumping (WME Well #2) and observation (WME Well #1) wells. Recovery was measured in both wells until 1030 hours on Tuesday, January 10th, 2006. The duration of the recovery portion of the test was 26 hours total.

During the 72-hour period of pumping, the flow meter indicated that approximately 864,000 gallons of water were discharged from the well. This is equivalent to approximately 2.65 acre feet of water. Total measured drawdown in the pumping well (WME Well #2) was 101.38 feet and 0.28 feet in the observation well (WME Well #1).

For the duration of the test, the water was clear and free of observable sand and silt.

Aquifer Analysis and Parameters

Analysis of the drawdown and recovery data was performed using AQTESOLV for Windows, Professional Edition (Version 3.5) by HydroSOLVE, Inc. The aquifer test data and analysis results are presented in Attachment A and Attachment B.

Evaluation of the pumping/recovery test data suggests that the Moench (1985) solution for a leaky confined aquifer provides the most appropriate analysis of the observations measured in the wells. The Moench (1985) solution assumes storage in the aquitard(s) with either a constant head boundary condition (Case 1) or no-flow boundary (Case 2). Both cases assume wellbore storage and partial aquifer penetration.

The solution methods were analyzed using two different anisotropy ratios of 0.1 and 0.01 as follows:

Aquifer Model	Solution Method	Aquifer Thickness (feet)	Kz/ Kr	T (gpd/ft)	S	1/B (/ft)	β/r (/ft)	K (gpd/ft^2)	K (ft/day)
Leaky	Moench (Case 1)[e]	223.2	0.1	6,691.4	0.003779	3.211E-5	0.003245	29.98	4
Leaky	Moench (Case 1)	223.2	0.01	6,577.4	0.003383	2.272E-4	0.01049	29.47	4
Leaky	Moench (Case 2)[f]	223.2	0.1	10,700	0.0001074	4.929E-6	0.01299	47.94	6.5
Leaky	Moench (Case 2)	223.2	0.01	10,760	0.0001	4.428E-6	0.01089	48.21	6.5
Average Values				8,682.2	0.001842	6.717E-5	0.009404	38.90	5.3

Transmissivity values estimated for the Moench (1985) – Case 1 solution are very similar for the assumed Kz/Kr values of 0.1 (6,691.4 gpd/ft) and 0.01 (6,577.4 gpd/ft). For the Moench (1985) – Case 2 solution, transmissivities estimated for the respective Kz/Kr values (10,700 gpd/ft and 10,760 gpd/ft) are greater because there is little or no contribution from storage from the aquitard(s).

The result of the Moench (1985) – Case 1 solution indicates an estimated storativity value of 0.0038 for an assumed Kz/Kr value of 0.1, and 0.0034 for a Kz/Kr value of 0.01. Both of these storativity values are consistent with a confined or leaky aquifer model. For the

[e] Constant head boundary
[f] No-flow boundary

Moench (1985) – Case 2 solution, the estimated storativity value is 0.0001 for either of the assumed Kz/Kr values and is similarly consistent with a confined or leaky aquifer model. As expected, the storativity for the Case 2 solution is less than for the Case 1 solution because, according to the analysis, there is little or no contribution from storage from the aquitard(s). The assumed Kz/Kr anisotropy ratios used in each case represent values that would be expected for the site conditions.

Conceptual Aquifer Model and Hydrogeologic Implications

The selection of the aquifer model that most appropriately represents the conditions expected in the vicinity of test well (WME Well #2), and observation well (WME Well #1), are based on available geological and hydrogeological documentation, and on the pumping/recovery test data. The geology of the valley fill materials[ghij] contains sands and gravels with intervening silts and clays associated with younger alluvial fan deposits. In the vicinity of the proposed development, the source of the alluvium is from the mountain front escarpment (White Mountains), to the east. Numerous faults are mapped along this escarpment[k]. These faults, along with the interbedded silt and clay deposits, are capable of producing vertically and laterally discontinuous stratifications within the alluvium, and can act as semi-permeable boundary conditions or barriers to groundwater flow within the aquifer.

The influence of faulting on groundwater movement east of WME Well #1 and Well #2 is apparent by the presence of springs east of Fault #4[k] (Figure 1 and Figures 3a,b), indicating a damming and/or spreading of groundwater behind Fault #4 and its associated minor faults. The faults act as groundwater barriers influencing spring discharge with water spilling over low spots in the surface expression of the fault. In addition, an undetermined amount of underflow and leakage through the faults would be expected as well, further contributing to the groundwater system to the west of the faults.

The conceptual model that appears to be supported by the current data is that of a hydrogeologic setting consistent with a leaky aquifer system. A simplified cross-section through the vicinity of the wells and eastward past the springs east of WME Well #1 is presented on Figure 3a and Figure 3b. The subsurface earth materials in the vicinity of the two wells are based on the well logs from WME Well #1 and WME Well #2. Further to the east, the subsurface is less defined based on available shallow trenching data. Five (5) significant faults, and numerous minor faults, were identified during the trenching performed by Sierra Geotechnical Services, Inc., as indicated in the cross-section. Based on field measurements and correction for apparent dip, the projection at depth of the surface exposure of Fault #1 appears to intersect WME Well #1. However, measured groundwater levels in WME Well #1 and WME Well #2 are similar.

---

[g] As derived from the geologic logs from the two Phase 2 wells, MWE Well #1 and #2.
[h] Danskin, Wesley R., 1998, Evaluation of the Hydrogeologic System and Selected Water-Management Alternatives in the Owens Valley, California; U.S. Geological Survey Water-Supply Paper 2370, pages 13-20.
[i] Philip Williams & Associates, 1980, The Hydrology of the Benton, Hammil, and Chalfant Valleys, Mono County, California, Final Report; March, pages 12-13.
[j] MHA Environmental Consulting, Inc., 2001, Task 1 Report, Preliminary Data Collection and Hydrologic Models for the US Filter Tri-Valley Surplus Groundwater Program, Mono County, California; March 9th, pages 4-19 and 4-20.
[k] Based on trenching and mapping performed by Sierra Geotechnical Services, Inc., 2005, Plate 1 – Site Geologic Map and Plate 2 – Geologic Cross Sections A-A' and A'- A''

Moench (1985) – Case 2 solution, the estimated storativity value is 0.0001 for either of the assumed Kz/Kr values and is similarly consistent with a confined or leaky aquifer model. As expected, the storativity for the Case 2 solution is less than for the Case 1 solution because, according to the analysis, there is little or no contribution from storage from the aquitard(s). The assumed Kz/Kr anisotropy ratios used in each case represent values that would be expected for the site conditions.

Conceptual Aquifer Model and Hydrogeologic Implications

The selection of the aquifer model that most appropriately represents the conditions expected in the vicinity of test well (WME Well #2), and observation well (WME Well #1), are based on available geological and hydrogeological documentation, and on the pumping/recovery test data. The geology of the valley fill materials[ghij] contains sands and gravels with intervening silts and clays associated with younger alluvial fan deposits. In the vicinity of the proposed development, the source of the alluvium is from the mountain front escarpment (White Mountains), to the east. Numerous faults are mapped along this escarpment[k]. These faults, along with the interbedded silt and clay deposits, are capable of producing vertically and laterally discontinuous stratifications within the alluvium, and can act as semi-permeable boundary conditions or barriers to groundwater flow within the aquifer.

The influence of faulting on groundwater movement east of WME Well #1 and Well #2 is apparent by the presence of springs east of Fault #4[k] (Figure 1 and Figure 3a), indicating a damming and/or spreading of groundwater behind Fault #4 and its associated minor faults. The faults act as groundwater barriers influencing spring discharge with water spilling over low spots in the surface expression of the fault. In addition, an undetermined amount of underflow and leakage through the faults would be expected as well, further contributing to the groundwater system to the west of the faults.

The conceptual model that appears to be supported by the current data is that of a hydrogeologic setting consistent with a leaky aquifer system. A simplified cross-section through the vicinity of the wells and eastward past the springs east of WME Well #1 is presented on Figure 3a and Figure 3b. The subsurface earth materials in the vicinity of the two wells are based on the well logs from WME Well #1 and WME Well #2. Further to the east, the subsurface is less defined based on available shallow trenching data. Five (5) significant faults, and numerous minor faults, were identified during the trenching performed by Sierra Geotechnical Services, Inc., as indicated in the cross-section. Based on field measurements and correction for apparent dip, the projection at depth of the surface exposure of Fault #1 appears to intersect WME Well #1. However, measured groundwater levels in WME Well #1 and WME Well #2 are similar.

---

[g] As derived from the geologic logs from the two Phase 2 wells, MWE Well #1 and #2.
[h] Danskin, Wesley R., 1998, Evaluation of the Hydrogeologic System and Selected Water-Management Alternatives in the Owens Valley, California; U.S. Geological Survey Water-Supply Paper 2370, pages 13-20.
[i] Philip Williams & Associates, 1980, The Hydrology of the Benton, Hammil, and Chalfant Valleys, Mono County, California, Final Report; March, pages 12-13.
[j] MHA Environmental Consulting, Inc., 2001, Task 1 Report, Preliminary Data Collection and Hydrologic Models for the US Filter Tri-Valley Surplus Groundwater Program, Mono County, California; March 9th, pages 4-19 and 4-20.
[k] Based on trenching and mapping performed by Sierra Geotechnical Services, Inc., 2005, Plate 1 – Site Geologic Map and Plate 2 – Geologic Cross Sections A-A' and A'- A''

The Moench (1985) solution method appears to be most consistent with the apparent hydrogeologic complexity indicated in the vicinity of the WME Phase 2 development. The available hydrogeologic data suggests that either the Case 1 or Case 2 solutions, or a combination of the two, represent a reasonable interpretation of the subsurface conditions. Both cases appear to match the drawdown/recovery data, with Case 1 more closely matching the observation well (WME Well #1) data.

Based on the above evaluation, the estimated average aquifer parameters in the vicinity of the well, assuming a saturated aquifer thickness of 223.2 feet, are as follows:

- Transmissivity of 8,682 gpd/ft;
- Hydraulic conductivity of 5.3 feet per day[l]; and
- Storativity of 0.0018[m].

The calculated average hydraulic conductivity is approximately 38.9 gpd/ft^2. The data suggest an observed specific capacity of 1.9 gpm/ft of drawdown and calculated specific capacity of 6 gpm/ft of drawdown assuming a 100% efficient well. This suggests an overall efficiency of approximately 32% for WME Well #2.

Analysis of the pump test data indicates that the proposed intersection of significant Fault #1 with WME Well #1 is not well defined, and appears not to present a boundary condition to groundwater flow. The similarity in groundwater elevations between the two (2) wells (WME Well #1 and WME Well #2) indicates that they are screened in the same aquifer. Moreover, the measured response in Well #1, to pumping in Well #2, suggests that both wells are screened in the same aquifer, that is, the main valley aquifer.

The data also indicated that pumping of WME Well #2 produced an estimated radius of influence (ROI) of approximately 1,000 feet. The eastern limit of the ROI associated with WME Well #2 is over 1,000 feet to the west of Fault #4 and the springs. Assuming (conservatively) a similar radius of influence resulting from the pumping of WME Well #1, the eastern limit of the ROI associated with WME Well #1 is over 330 feet to the west of Fault #4 and the springs. Interpretation of the hydrogeologic conditions suggests that the springs result from the damming of the fault causing the groundwater to daylight. This damming presents a barrier to groundwater flow and consequently should limit any interaction between the ROI and groundwater system upgradient of the faults and associated springs, should a greater than estimated ROI occur. Therefore, impact to the springs from the pumping of either well is not expected to produce a significant impact. Similarly, impact to the existing WME Phase 1 well, located approximately 1,200 feet northwest and down-slope of WME Phase II Well #2 is also not expected to be significant.

---

[l] This result matches the results of a specific capacity test survey from 46 wells. The summarized data provided by U.S. Filter (Task 1 Report – Preliminary Data Collection and Hydrologic Models for the U.S. Filter Tri-Valley Surplus Groundwater Program, Mono County, California, MHA Environmental Consulting, Inc.; March 9, 2001) indicates that wells completed to depths less than 400 feet have a hydraulic conductivity of less than 15 feet per day.

[m] The storativity is dependant on the actual thickness of the aquifer, increasing with increasing aquifer thickness.

Estimated Water Demands

Estimates of the annual domestic water demand for the proposed residential subdivision, comprised of an anticipated 40 single-family dwellings, assuming one (1) acre-foot per year per dwelling[n], is 40 acre-feet per year (AF/yr). Based on this requirement, the volume of water necessary to meet this demand is approximately 25 gallons per minute (gpm), 24 hours per day. This demand can be met from either one of the two wells, or from both of the wells, each pumping at a rate of 12.5 gpm. By pumping at a higher rate of 75 gpm, the demand could be met in eight (8) hours; or approximately 38 gpm, if water is produced from both wells. Assuming a pumping rate of 75 gpm from only one (1) well, the estimated drawdown, presuming a well efficiency of approximately 32 percent, is on the order of about 40 feet.

Conclusion

The hydrogeologic setting in the vicinity of the proposed WME Phase 2 development has been investigated by reviewing available documentation, installation and logging of shallow geotechnical trenching[o], and the installation and testing of WMW Well #1 and WME Well #2. Based on the data compiled and evaluated, both of the wells are constructed within the main valley aquifer and thus will produce groundwater from a known major source as described previously.

Review of available data indicates that the Chalfant Valley area may be experiencing a decline in water levels that can be attributed at least in part to the reduced amounts of annual rainfall, and not solely due to the reported over-pumping as presented in the MHA report[p]. Therefore, it is possible that, with the same amount of groundwater extraction that was presented in the MHA report, or perhaps even an increased amount of extraction, and with the possible resumption of normal water-supply conditions in the area over the long term, groundwater levels may return to or near former levels[q].

Assuming a vertical saturated thickness of the aquifer of at least 223 feet and an approximate surface area for the project of 76.58 acres, the estimated total volume of currently saturated sediments solely beneath the property is 17,077 AF. Assuming specific yield is approximately 10 percent, the current volume of available groundwater beneath the property is estimated at 1,700 AF. It is important to note that these calculations do not include inflow or outflow, and only include groundwater in storage directly beneath the property. Based on this calculation, the estimated water demand for the proposed development of 40 AF/yr appears to represent only about 2.5 percent of the current water resource that is currently in storage beneath the property. Over a ten (10) period, the estimated 400 AF required for the development represents about 24 percent of the total available resource, not including recharge to the system.

---

[n] Based on the accepted water usage approved by the County of Mono for the proposed residential subdivision portion of the Specific Plan area (APN 26-210-37), in Water Well Feasibility and Siting Study, Proposed Specific Plan Area, Chalfant Valley Area, Mono County, California; RCS & Assoc. LLC, September 2004.

[o] Sierra Geotechnical Services, Inc., 2005.

[p] Water Well Feasibility and Siting Study, Proposed Specific Plan Area, Chalfant Valley Area, Mono County, California; RCS & Assoc. LLC, September 2004; pages 13-15.

[q] Ibid, page 15.

The availability of groundwater for the proposed Phase 2 development should also be considered a combination of groundwater flow directly from the White Mountains and groundwater flow through Chalfant Valley. The presence of multiple faults and springs east of the two (2) wells indicates probable additional recharge through this hydrogeologic system. Evaluation of the hydrogeologic conditions suggests that the two wells are screened in the main valley aquifer. Consequently, the water supply needs of the proposed Phase 2 development should be met by using the groundwater produced from these two (2) wells.

Closure

This letter report has been prepared for the exclusive use of Mr. Robert Stark, White Mountain Estates, LLC, and is strictly for the proposed 76.58 acre development in Mono County, California. For this hydrogeologic evaluation, the data used in the interpretation and analysis provided above was derived from multiple sources and were assumed to be valid as presented. A reasonable effort was incorporated into obtaining sources pertinent to this evaluation and does not preclude the availability of additional data. The report has been written in accordance with the care and skill generally exercised professionals currently working under similar circumstances. No other warranty, either expressed or implied, is made as to the professional advice or opinions presented herein. Any use, interpretation, or emphasis other than that contained herein, is done at the reader's sole risk.

Golden State Environmental, Inc. appreciates this opportunity to perform this work for White Mountain Estates and looks forward to working with you in the future. Should you have any questions or comments, please call us.

Sincerely,
Golden State Environmental, Inc. (GSE)

Dale Schneeberger, P.G.
Principal Geologist

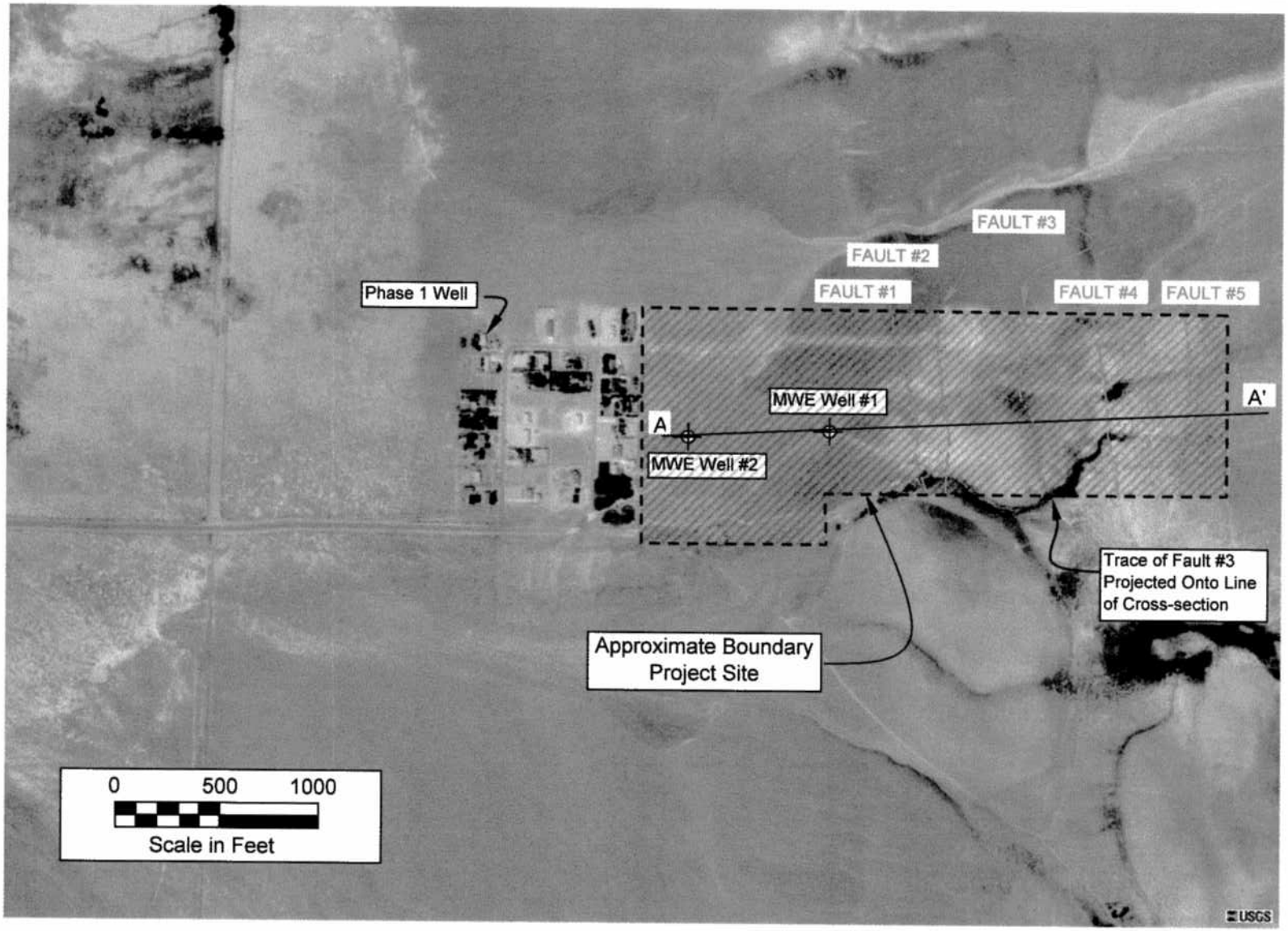
Robert Traylor, P.G., C.Hg.
Principal Hydrogeologist

REGISTERED GEOLOGIST
ROBERT L TRAYLOR
No. 5877
STATE OF CALIFORNIA

Figures
Attachments

REGISTERED GEOLOGIST
DALE
M.
SCHNEEBERGER
NO. 4737,
Exp. 9/30/06
STATE OF CALIFORNIA

Figures



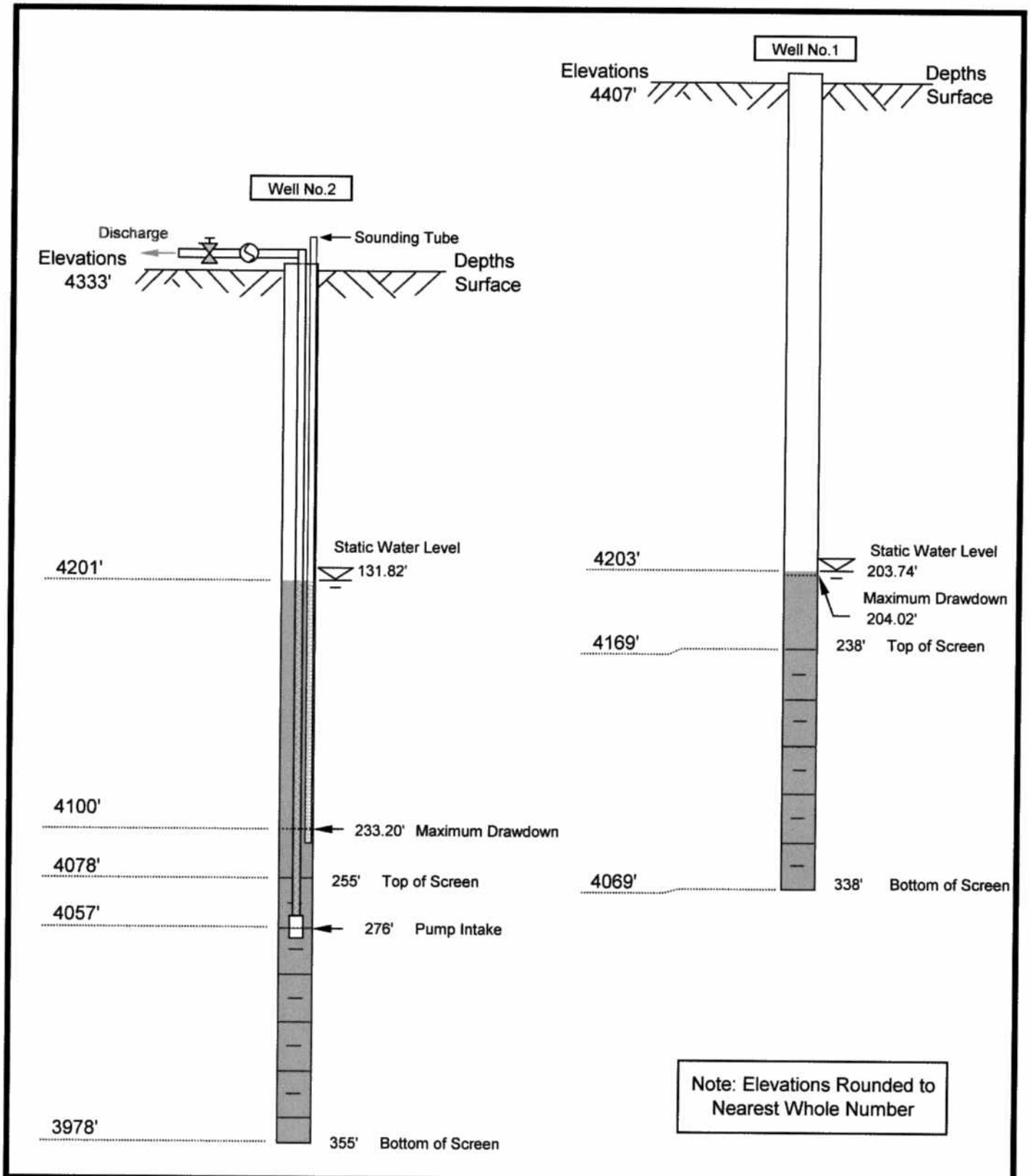
Golden State Environmental

Where Experience and Technology Come Together

SITE DETAIL MAP

White Mountain Estates Phase 2

FIGURE 1



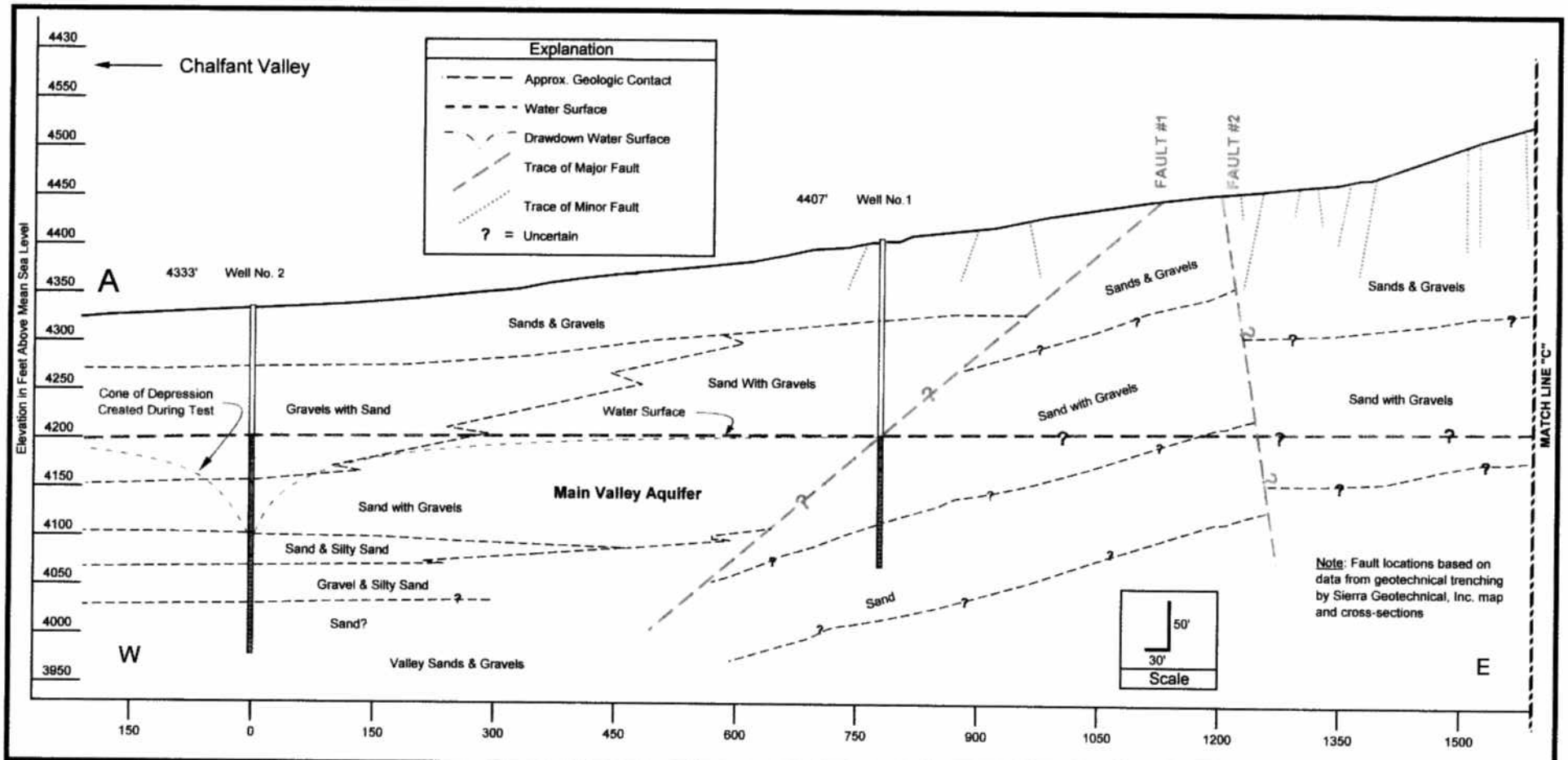
GSE Golden State Environmental

Where Experience and Technology Come Together

Well Construction and Set-up Information
72-Hour Aquifer Test

White Mountain Estates Phase 2

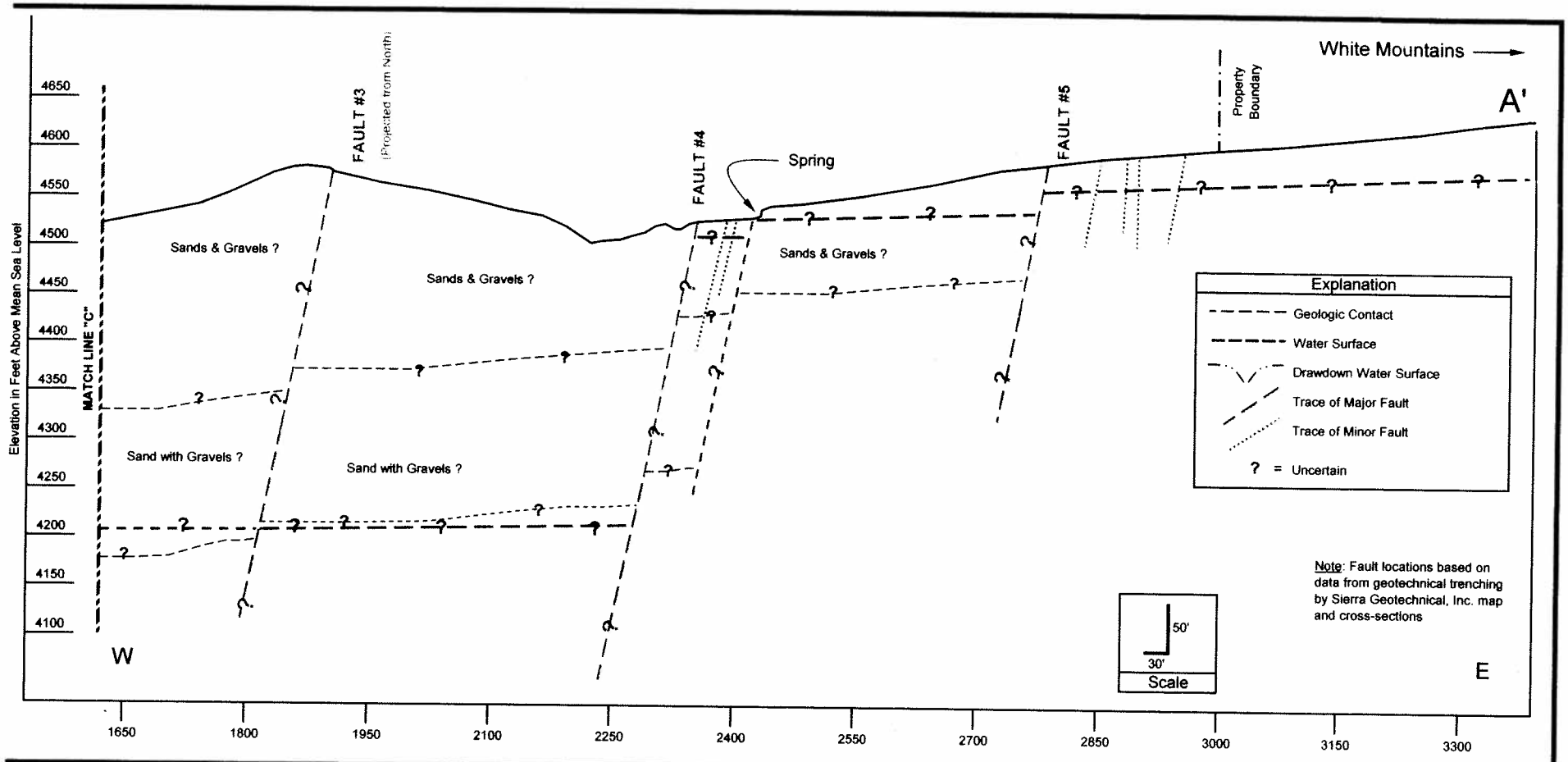
Figure 2



Where Experience and Technology Come Together

Simplified East-West Cross-Section A - A' (West Half)
White Mountain Estates Phase 2

Figure 3a



Where Experience and Technology Come Together

Simplified East-West Cross-Section A - A' (East Half)
White Mountain Estates Phase 2

Figure 3b

Attachments

Attachment A

(Pump Test Data)

DATA INPUT

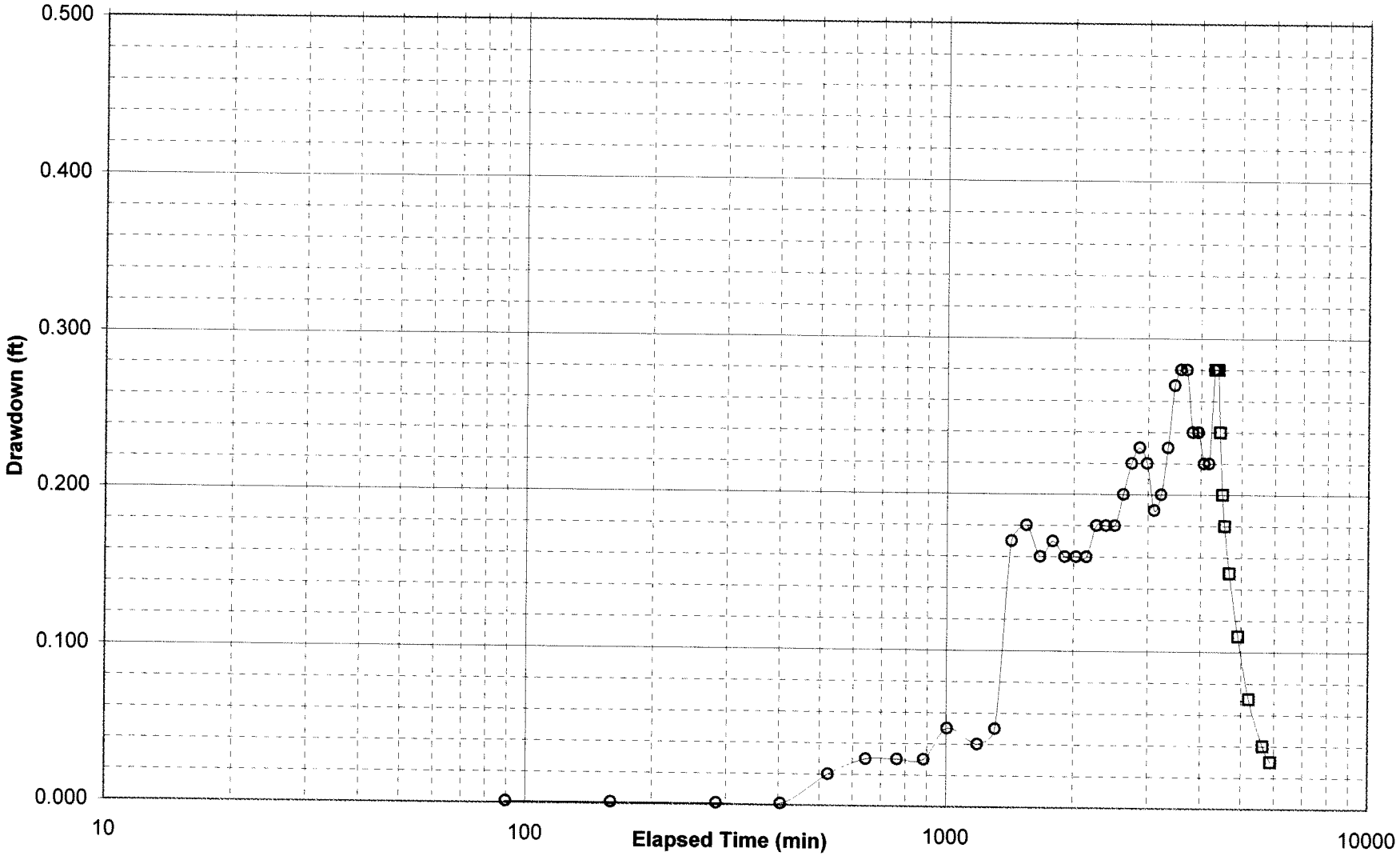
Well No.	1		
DTW Before Start	203.74	[Static Level]	
Pump Start	8:30:00	hrs	01/06/06
Pump Stop	8:30:00	hrs	01/09/06

Total Depth	338
Water Column	134.26
DTW at End of Recovery Test	203.91
% Recovery	89.29

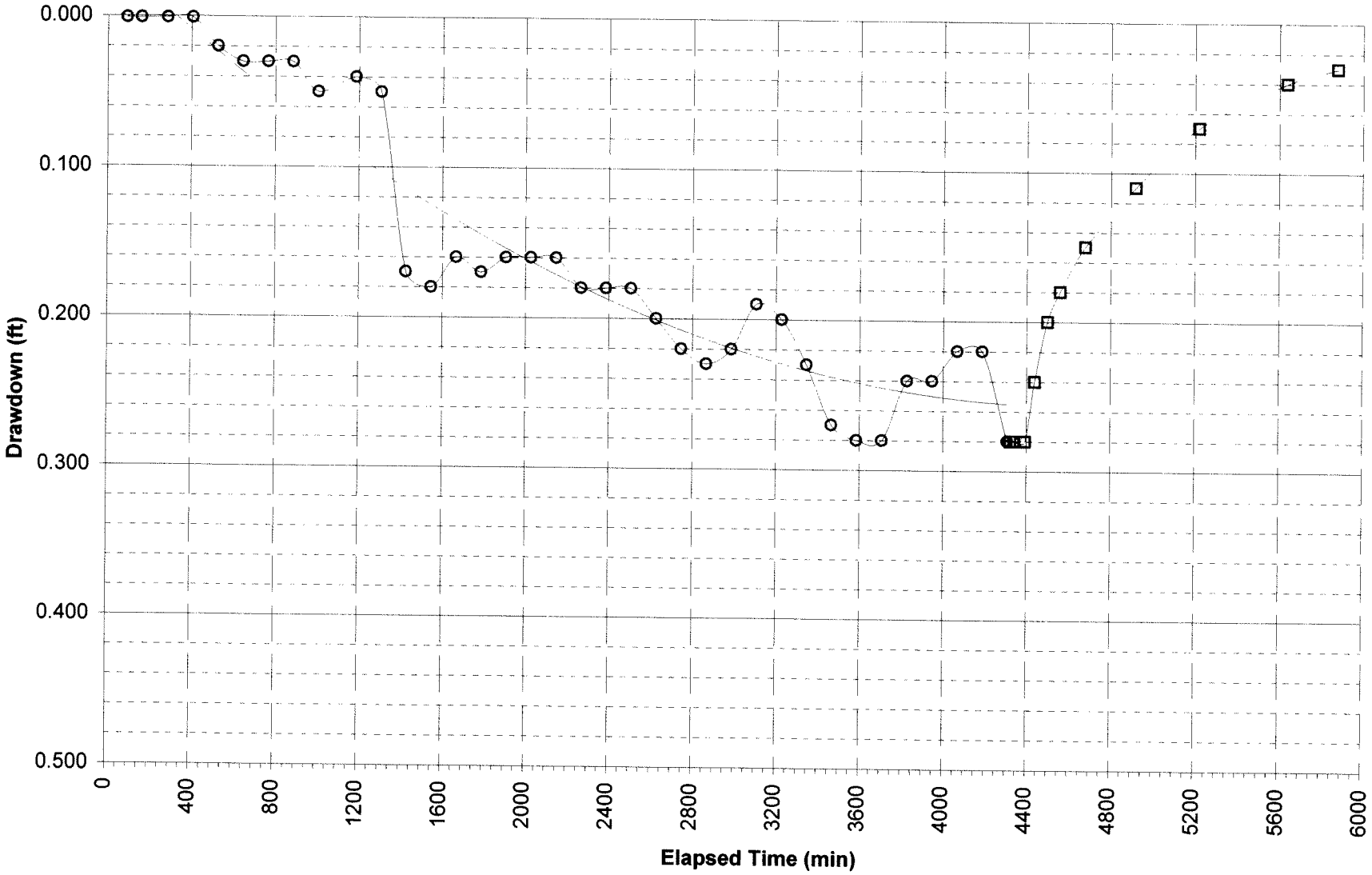
Elapsed Time (Min)	DTW (ft)	Drawdown (ft)	Clock Time
90	203.74	0.001	10:00
160	203.74	0.001	11:10
285	203.74	0.001	13:15
405	203.74	0.001	15:15
525	203.76	0.02	17:15
645	203.77	0.03	19:15
765	203.77	0.03	21:15
885	203.77	0.03	23:15
1005	203.79	0.05	1:15
1185	203.78	0.04	4:15
1305	203.79	0.05	6:15
1425	203.91	0.17	8:15
1545	203.92	0.18	10:15
1665	203.90	0.16	12:15
1785	203.91	0.17	14:15
1905	203.90	0.16	16:15
2025	203.90	0.16	18:15
2145	203.90	0.16	20:15
2265	203.92	0.18	22:15
2385	203.92	0.18	0:15
2505	203.92	0.18	2:15
2625	203.94	0.20	4:15
2745	203.96	0.22	6:15
2865	203.97	0.23	8:15
2985	203.96	0.22	10:15
3105	203.93	0.19	12:15
3225	203.94	0.20	14:15
3345	203.97	0.23	16:15
3465	204.01	0.27	18:15
3585	204.02	0.28	20:15
3705	204.02	0.28	22:15
3825	203.98	0.24	0:15
3945	203.98	0.24	2:15
4065	203.96	0.22	4:15
4185	203.96	0.22	6:15
4305	204.02	0.28	8:15

Elapsed Time (Min)	DTW (ft)	Recovery (ft)	Clock Time
4320	204.02	0.28	8:30
4337	204.02	0.28	8:47
4390	204.02	0.28	9:40
4435	203.98	0.24	10:25
4495	203.94	0.20	11:25
4555	203.92	0.18	12:25
4675	203.89	0.15	14:25
4915	203.85	0.11	18:25
5215	203.81	0.07	23:25
5635	203.78	0.04	6:25
5875	203.77	0.03	10:25

TIme - Drawdown Plot Observation Well #1



TIme - Drawdown Plot Observation Well #1



DATA INPUT

Well No.	2		
DTW Before Start	131.82	[Static Level]	
Pump Start	8:30:00	hrs	01/06/06
Pump Stop	8:30:00	hrs	01/09/06

Elapsed Time (Min)	DTW (ft)	Drawdown (ft)	Interval	Hours
0	131.83	0.00	30 Seconds	
0.5	177.10	45.28		
1	186.60	54.78		
1.5	192.46	60.64		
2	195.65	63.83		
2.5	198.58	66.76		
3	201.41	69.59		
3.5	203.29	71.47		
4	204.96	73.14		
4.5	207.12	75.30		
5	208.49	76.67		
7.5	213.47	81.65	2.5 Min	
10	214.69	82.87		
15	216.82	85.00	5 minutes	
20	217.88	86.06		
25	218.62	86.80		
30	219.06	87.24		0.5
35	219.71	87.89		
40	219.79	87.97		
45	220.78	88.96		
50	221.16	89.34		
55	221.58	89.76		
60	221.82	90.00		1
75	222.72	90.90	15 minutes	
90	222.72	90.90		
105	223.08	91.26		
120	223.34	91.52		2
135	224.12	92.30		
150	224.64	92.82		
165	224.82	93.00		
180	225.22	93.40		3
195	225.29	93.47		
210	225.81	93.99		
225	225.85	94.03		
240	225.89	94.07		4
270	226.36	94.54	30 minutes	
300	226.71	94.89		5
330	226.82	95.00		
360	227.16	95.34		6
390	227.21	95.39		
420	227.39	95.57		7
450	227.45	95.63		

Total Depth	355	
Water Column	223.18	
DTW at End of Recovery Test	131.89	
% Recovery	99.08	
Recovery Stop	10:30:00 hrs	01/10/06

Elapsed Time (Min)	DTW (ft)	Recovery (ft)	Interval	Hours
4320	233.20	101.38		
4320.5	166.30	34.48		
4321	155.76	23.94		
4321.5	149.92	18.10		
4322	146.48	14.66		
4322.5	143.61	11.79		
4323	142.15	10.33		
4323.5	141.96	10.14		
4324	140.21	8.39		
4324.5	139.57	7.75		
4325	139.03	7.21		
4327.5	137.37	5.55		
4330	136.48	4.66		
4335	135.68	3.86		
4340	134.88	3.06		
4345	134.51	2.69		
4350	134.22	2.40		0.5
4355	134.03	2.21		
4360	133.87	2.05		
4365	133.74	1.92		
4370	133.57	1.75		
4375	133.53	1.71		
4380	133.48	1.66		1
4395	133.32	1.50		
4410	133.22	1.40		
4425	133.16	1.34		
4440	133.12	1.30		2
4455	133.07	1.25		
4470	133.02	1.20		
4485	133.00	1.18		
4500	132.98	1.16		3
4515	132.96	1.14		
4530	132.94	1.12		
4545	132.92	1.10		
4560	132.90	1.08		4
4590	132.88	1.06		
4620	132.87	1.05		5
4650	132.86	1.04		
4680	132.85	1.03		6
4920	132.81	0.99		10
5220	132.79	0.97		15
5640	132.76	0.94		22

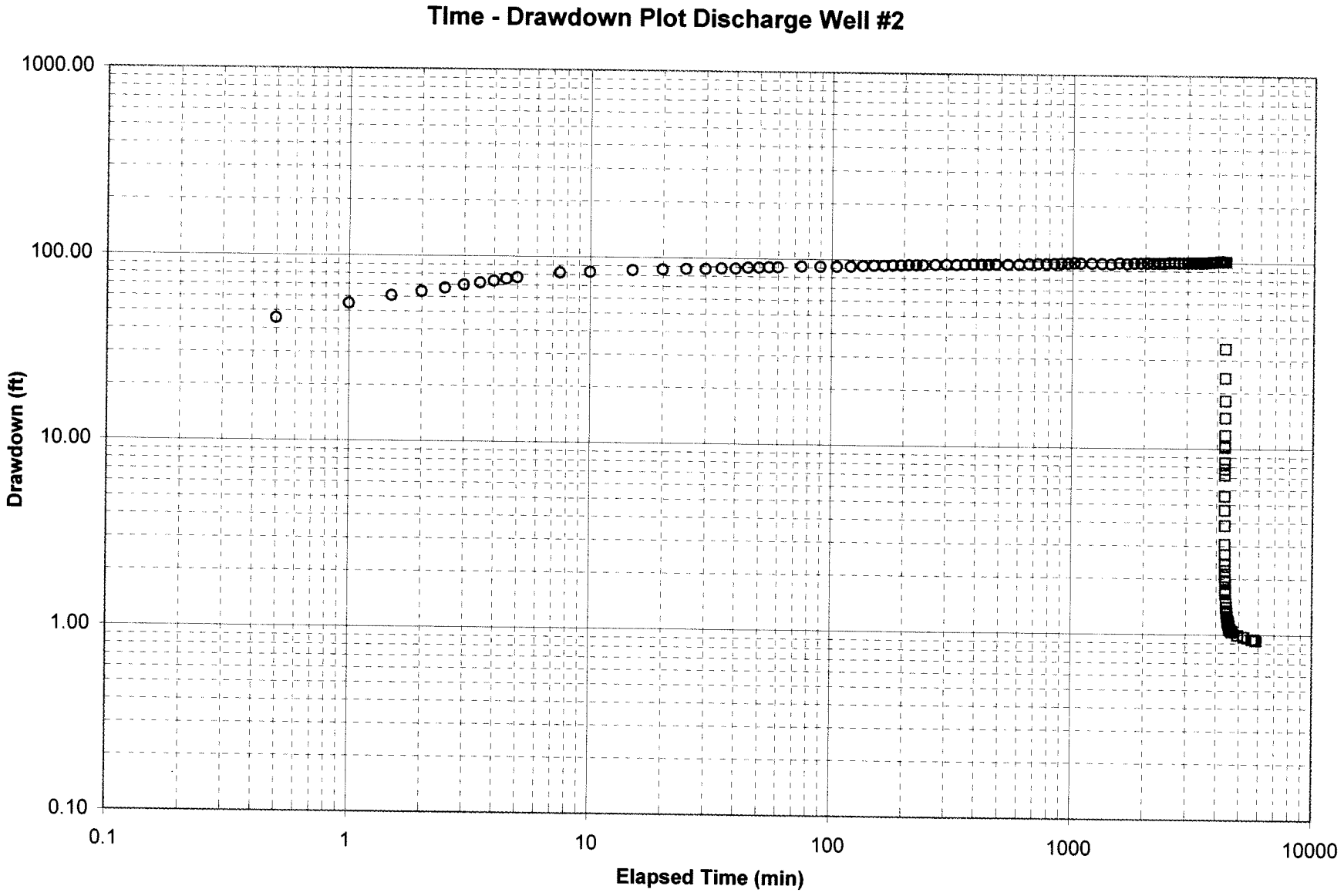
DATA INPUT

Well No.	2		
DTW Before Start	131.82	[Static Level]	
Pump Start	8:30:00	hrs	01/06/06
Pump Stop	8:30:00	hrs	01/09/06

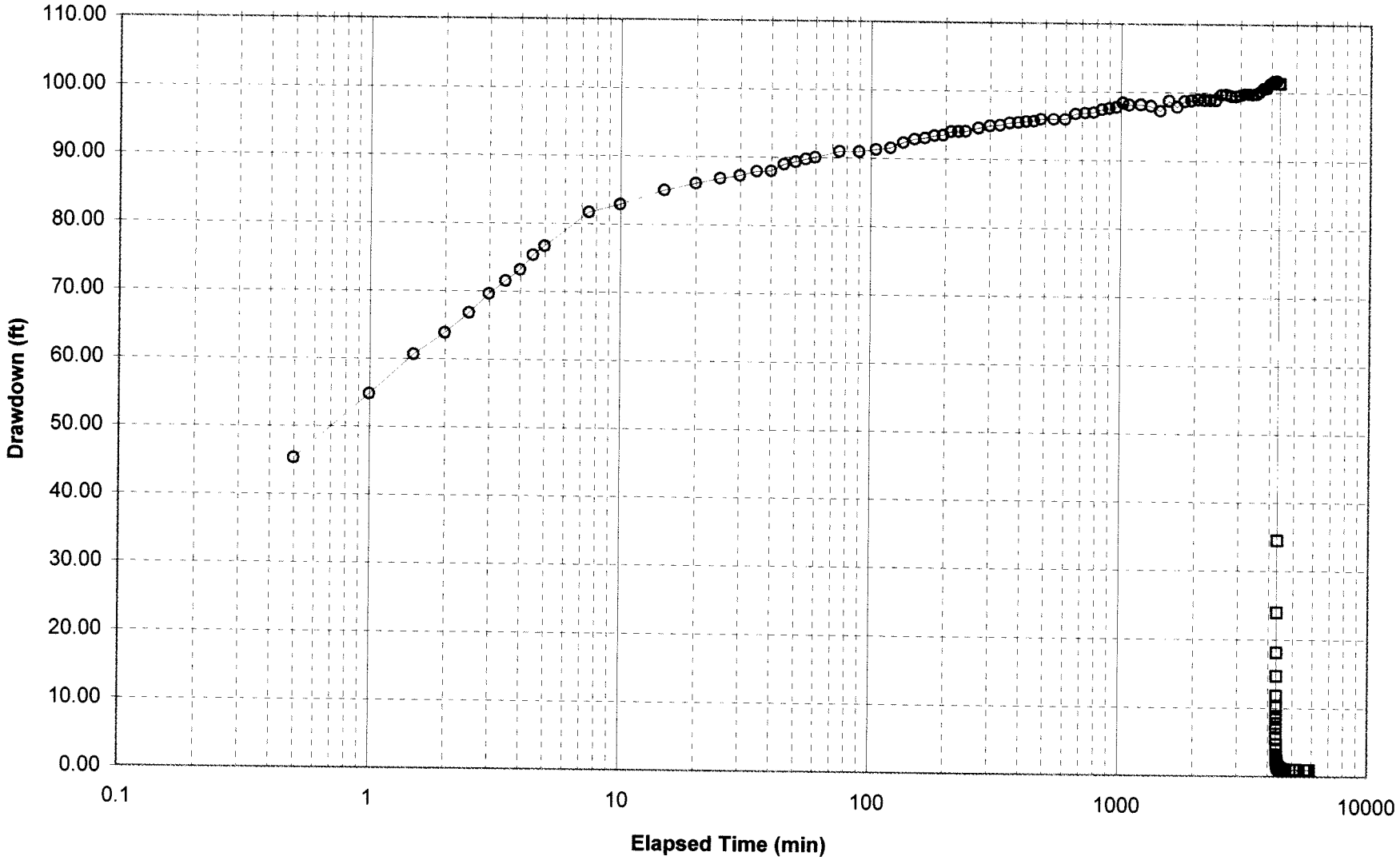
Elapsed Time (Min)	DTW (ft)	Drawdown (ft)	Interval	Hours
480	227.75	95.93		8
540	227.75	95.93		
600	227.75	95.93		10
660	228.57	96.75		
720	228.72	96.90		12
780	228.79	96.97		
840	229.25	97.43	1 Hour	
900	229.42	97.60		15
960	229.58	97.76		
1020	230.22	98.40		
1080	229.95	98.13		18
1200	229.98	98.16		
1320	229.79	97.97		
1440	229.08	97.26		24
1560	230.57	98.75		
1680	229.68	97.86		
1800	230.51	98.69		
1920	230.62	98.80		
2040	230.79	98.97		
2160	230.69	98.87		36
2280	230.69	98.87		
2400	230.69	98.87		
2520	231.49	99.67		
2640	231.54	99.72		
2760	231.32	99.50	2 Hours	
2880	231.26	99.44		48
3000	231.40	99.58		
3120	231.61	99.79		
3240	231.62	99.80		
3360	231.54	99.72		
3480	231.61	99.79		
3600	231.95	100.13		60
3720	232.45	100.63		
3840	232.48	100.66		
3960	233.19	101.37		
4080	233.46	101.64		
4200	233.58	101.76		
4320	233.20	101.38		72

Total Depth	355	
Water Column	223.18	
DTW at End of Recovery Test	131.89	
% Recovery	99.08	
Recovery Stop	10:30:00 hrs	01/10/06

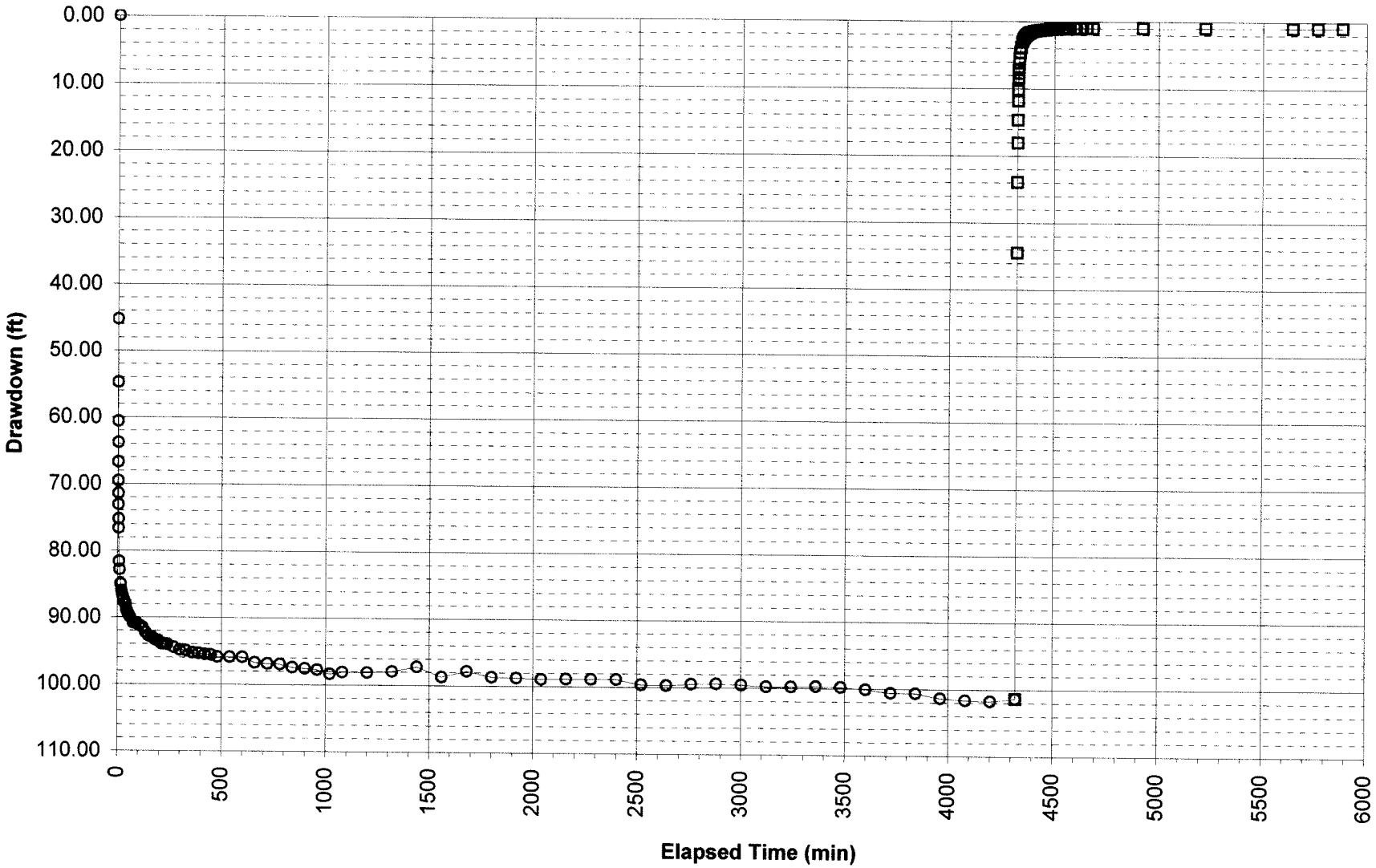
Elapsed Time (Min)	DTW (ft)	Recovery (ft)	Interval	Hours
5760	132.76	0.94		24
5880	132.75	0.93		26


TIme - Drawdown Plot Discharge Well #2
1000.00
100.00
10.00
1.00
0.10
Drawdown (ft)
0.1
1
10
100
1000
10000
Elapsed Time (min)

TIme - Drawdown Plot Discharge Well #2

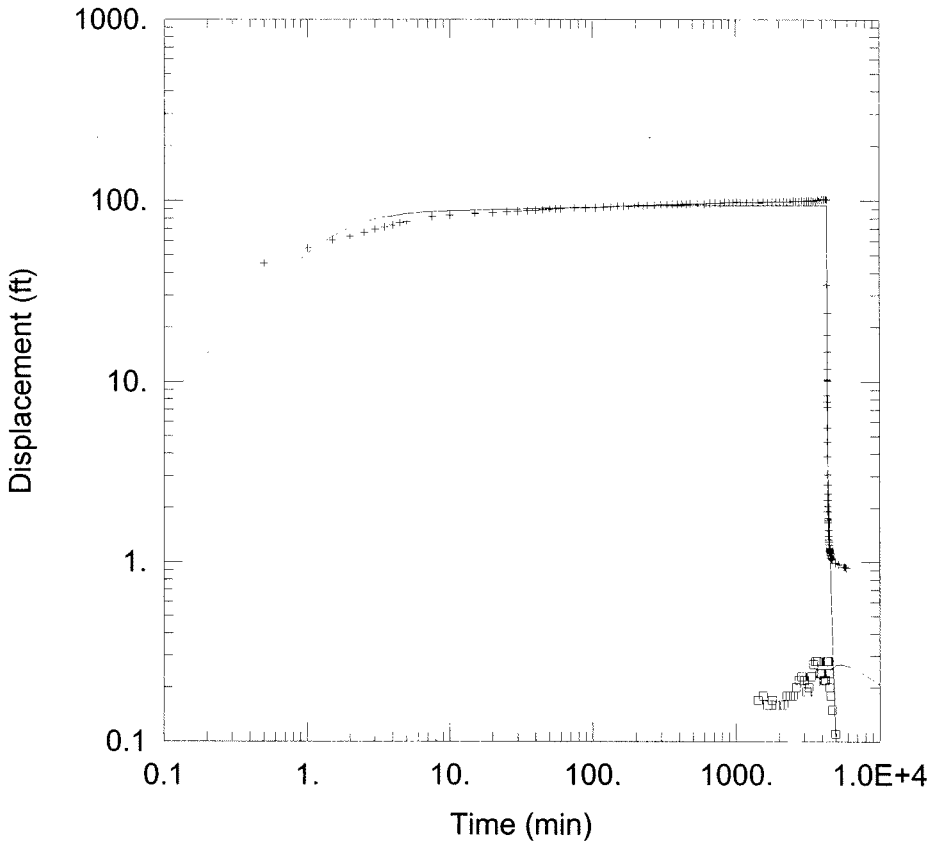


TIme - Drawdown Plot Discharge Well #2



Attachment B

(Aquifer Analysis)



WELL TEST ANALYSIS

Data Set: C:\...\WME 72-hr Test_02_Moench (1)_Leaky_Kz
Date: 02/09/06 Time: 15:05:42

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Well: Well No. 2
Test Date: January 6-10, 2006

SOLUTION

Aquifer Model: Leaky
Solution Method: Moench (Case 1)

T = 6691.4 gal/day/ft
S = 0.003779
1/B = 3.044E-5 ft^{-1}
ß/r = 0.003076 ft^{-1}
Sw = 2.683
r(w) = 1.422E-5 ft

AQUIFER DATA

Saturated Thickness: 223.2 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
PW1(Well #2)	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
OW1(Well #1)	770	0
OW2(Well #2)	0	0

Data Set: C:\Program Files\HydroSOLVE\AQTESOLV for Windows Pro 3.5\WME 72-hr Test_02_Moench (1)_Leaky_KzKr0.1.aqt
Date: 02/09/06
Time: 15:07:00

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Date: January 6-10, 2006
Test Well: Well No. 2

AQUIFER DATA

Saturated Thickness: 223.2 ft
Anisotropy Ratio (Kz/Kr): 0.1

PUMPING WELL DATA

No. of pumping wells: 1

Pumping Well No. 1: PW1(Well #2)

X Location: 0. ft
Y Location: 0. ft

Casing Radius: 0.3333 ft
Wellbore Radius: 0.5833 ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of pumping periods: 5

Pumping Period Data

Time (min)	Rate (gal/min)	Time (min)	Rate (gal/min)
0.	205.	4.	200.
1.5	200.	4320.5	0.
3.5	195.		

OBSERVATION WELL DATA

No. of observation wells: 2

Observation Well No. 1: OW1(Well #1)

X Location: 770. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 770. ft

Partially Penetrating Well
Depth to Top of Screen: 29.26 ft
Depth to Bottom of Screen: 134.3 ft

No. of Observations: 54

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	0.	2505.	0.18
10.	0.	2625.	0.2
20.	0.	2745.	0.22
30.	0.	2865.	0.23
40.	0.	2985.	0.22
50.	0.	3105.	0.19
60.	0.	3225.	0.2
75.	0.	3345.	0.23
90.	0.	3465.	0.27
160.	0.	3585.	0.28
285.	0.	3705.	0.28
405.	0.	3825.	0.24
525.	0.02	3945.	0.24
645.	0.03	4065.	0.22
765.	0.03	4185.	0.22
1005.	0.05	4305.	0.28
1185.	0.04	4320.	0.28
1305.	0.05	4337.	0.28
1425.	0.17	4390.	0.28
1545.	0.18	4435.	0.24
1665.	0.16	4495.	0.2

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1785.	0.17	4555.	0.18
1905.	0.16	4675.	0.15
2025.	0.16	4915.	0.11
2145.	0.16	5215.	0.07
2265.	0.18	5635.	0.04
2385.	0.18	5875.	0.03

Observation Well No. 2: OW2(Well #2)

X Location: 0. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 0. ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of Observations: 122

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	45.28	2280.	98.87
1.	54.78	2400.	98.87
1.5	60.64	2520.	99.67
2.	63.83	2640.	99.72
2.5	66.76	2760.	99.5
3.	69.59	2880.	99.44
3.5	71.47	3000.	99.58
4.	73.14	3120.	99.79
4.5	75.3	3240.	99.8
5.	76.67	3360.	99.72
7.5	81.65	3480.	99.79
10.	82.87	3600.	100.1
15.	85.	3720.	100.6
20.	86.06	3840.	100.7
25.	86.8	3960.	101.4
30.	87.24	4080.	101.6
35.	87.89	4200.	101.8
40.	87.97	4320.	101.4

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
45.	88.96	4320.5	34.48
50.	89.34	4321.	23.94
55.	89.76	4321.5	18.1
60.	90.	4322.	14.66
75.	90.9	4322.5	11.79
90.	90.9	4323.	10.33
105.	91.26	4323.5	10.14
120.	91.52	4324.	8.39
135.	92.3	4324.5	7.75
150.	92.82	4325.	7.21
165.	93.	4327.5	5.55
180.	93.4	4330.	4.66
195.	93.47	4335.	3.86
210.	93.99	4340.	3.06
225.	94.03	4345.	2.69
240.	94.07	4350.	2.4
270.	94.54	4355.	2.21
300.	94.89	4360.	2.05
330.	95.	4365.	1.92
360.	95.34	4370.	1.75
390.	95.39	4375.	1.71
420.	95.57	4380.	1.66
450.	95.63	4395.	1.5
480.	95.93	4410.	1.4
540.	95.93	4425.	1.34
600.	95.93	4440.	1.3
660.	96.75	4455.	1.25
720.	96.9	4470.	1.2
780.	96.97	4485.	1.18
840.	97.43	4500.	1.16
900.	97.6	4515.	1.14
960.	97.76	4530.	1.12
1020.	98.4	4545.	1.1
1080.	98.13	4560.	1.08
1200.	98.16	4590.	1.06
1320.	97.97	4620.	1.05
1440.	97.26	4650.	1.04
1560.	98.75	4680.	1.03
1680.	97.86	4920.	0.99
1800.	98.69	5220.	0.97

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1920.	98.8	5640.	0.94
2040.	98.97	5760.	0.94
2160.	98.87	5880.	0.93

SOLUTION

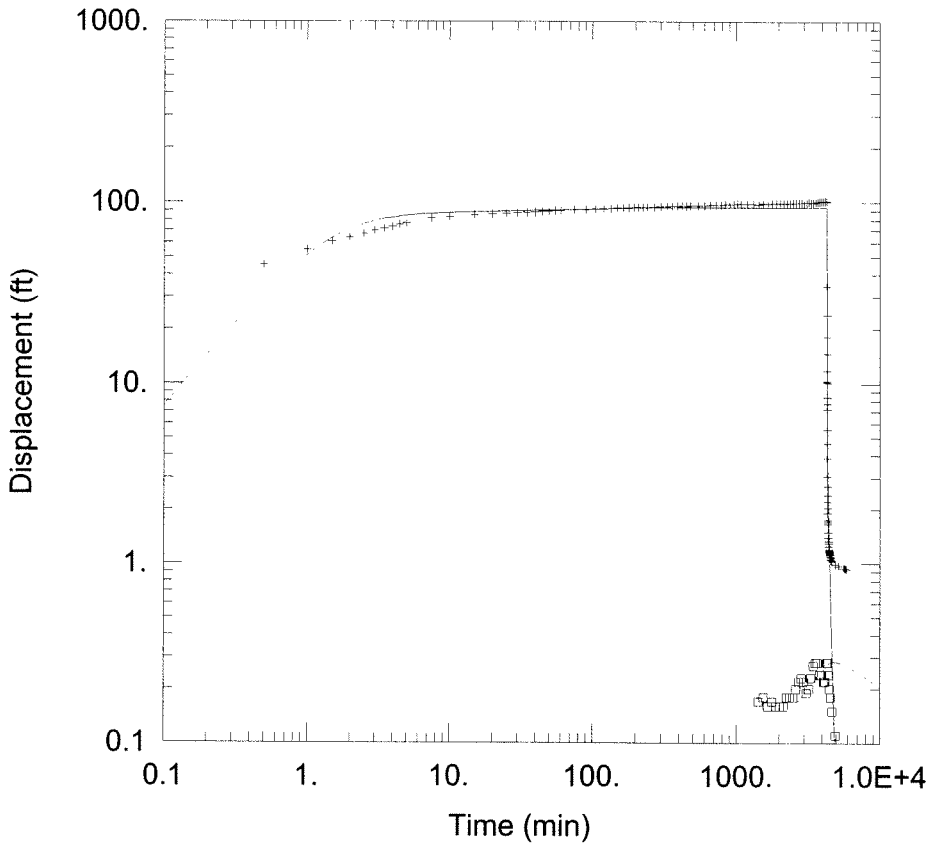
Aquifer Model: Leaky
Solution Method: Moench (Case 1)

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
T	6691.4	gal/day/ft
S	0.003779	
1/B	3.044E-5	ft^{-1}
ß/r	0.003076	ft^{-1}
Sw	2.683	
r(w)	1.422E-5	ft

K = T/b = 29.98 gal/day/ft²



WELL TEST ANALYSIS

Data Set: C:\...\WME 72-hr Test_02_Moench (1)_Leaky_Kz
Date: 02/09/06 Time: 15:09:15

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Well: Well No. 2
Test Date: January 6-10, 2006

SOLUTION

Aquifer Model: Leaky
Solution Method: Moench (Case 1)

T = 6577.4 gal/day/ft
S = 0.0003383
1/B = 0.000227? ft^{-1}
ß/r = 0.01049 ft^{-1}
Sw = 4.406
r(w) = 0.0007168 ft

AQUIFER DATA

Saturated Thickness: 223.2 ft

Anisotropy Ratio (Kz/Kr): 0.01

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
PW1(Well #2)	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
OW1(Well #1)	770	0
OW2(Well #2)	0	0

Data Set: C:\Program Files\HydroSOLVE\AQTESOLV for Windows Pro 3.5\WME 72-hr Test_02_Moench (1)_Leaky_KzKr0.01.aqt
Date: 02/09/06
Time: 15:09:23

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Date: January 6-10, 2006
Test Well: Well No. 2

AQUIFER DATA

Saturated Thickness: 223.2 ft
Anisotropy Ratio (Kz/Kr): 0.01

PUMPING WELL DATA

No. of pumping wells: 1

Pumping Well No. 1: PW1(Well #2)

X Location: 0. ft
Y Location: 0. ft

Casing Radius: 0.3333 ft
Wellbore Radius: 0.5833 ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of pumping periods: 5

Pumping Period Data

Time (min)	Rate (gal/min)	Time (min)	Rate (gal/min)
0.	205.	4.	200.
1.5	200.	4320.5	0.
3.5	195.		

OBSERVATION WELL DATA

No. of observation wells: 2

Observation Well No. 1: OW1(Well #1)

X Location: 770. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 770. ft

Partially Penetrating Well
Depth to Top of Screen: 29.26 ft
Depth to Bottom of Screen: 134.3 ft

No. of Observations: 54

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	0.	2505.	0.18
10.	0.	2625.	0.2
20.	0.	2745.	0.22
30.	0.	2865.	0.23
40.	0.	2985.	0.22
50.	0.	3105.	0.19
60.	0.	3225.	0.2
75.	0.	3345.	0.23
90.	0.	3465.	0.27
160.	0.	3585.	0.28
285.	0.	3705.	0.28
405.	0.	3825.	0.24
525.	0.02	3945.	0.24
645.	0.03	4065.	0.22
765.	0.03	4185.	0.22
1005.	0.05	4305.	0.28
1185.	0.04	4320.	0.28
1305.	0.05	4337.	0.28
1425.	0.17	4390.	0.28
1545.	0.18	4435.	0.24
1665.	0.16	4495.	0.2

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1785.	0.17	4555.	0.18
1905.	0.16	4675.	0.15
2025.	0.16	4915.	0.11
2145.	0.16	5215.	0.07
2265.	0.18	5635.	0.04
2385.	0.18	5875.	0.03

Observation Well No. 2: OW2(Well #2)

X Location: 0. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 0. ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of Observations: 122

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	45.28	2280.	98.87
1.	54.78	2400.	98.87
1.5	60.64	2520.	99.67
2.	63.83	2640.	99.72
2.5	66.76	2760.	99.5
3.	69.59	2880.	99.44
3.5	71.47	3000.	99.58
4.	73.14	3120.	99.79
4.5	75.3	3240.	99.8
5.	76.67	3360.	99.72
7.5	81.65	3480.	99.79
10.	82.87	3600.	100.1
15.	85.	3720.	100.6
20.	86.06	3840.	100.7
25.	86.8	3960.	101.4
30.	87.24	4080.	101.6
35.	87.89	4200.	101.8
40.	87.97	4320.	101.4

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
45.	88.96	4320.5	34.48
50.	89.34	4321.	23.94
55.	89.76	4321.5	18.1
60.	90.	4322.	14.66
75.	90.9	4322.5	11.79
90.	90.9	4323.	10.33
105.	91.26	4323.5	10.14
120.	91.52	4324.	8.39
135.	92.3	4324.5	7.75
150.	92.82	4325.	7.21
165.	93.	4327.5	5.55
180.	93.4	4330.	4.66
195.	93.47	4335.	3.86
210.	93.99	4340.	3.06
225.	94.03	4345.	2.69
240.	94.07	4350.	2.4
270.	94.54	4355.	2.21
300.	94.89	4360.	2.05
330.	95.	4365.	1.92
360.	95.34	4370.	1.75
390.	95.39	4375.	1.71
420.	95.57	4380.	1.66
450.	95.63	4395.	1.5
480.	95.93	4410.	1.4
540.	95.93	4425.	1.34
600.	95.93	4440.	1.3
660.	96.75	4455.	1.25
720.	96.9	4470.	1.2
780.	96.97	4485.	1.18
840.	97.43	4500.	1.16
900.	97.6	4515.	1.14
960.	97.76	4530.	1.12
1020.	98.4	4545.	1.1
1080.	98.13	4560.	1.08
1200.	98.16	4590.	1.06
1320.	97.97	4620.	1.05
1440.	97.26	4650.	1.04
1560.	98.75	4680.	1.03
1680.	97.86	4920.	0.99
1800.	98.69	5220.	0.97

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1920.	98.8	5640.	0.94
2040.	98.97	5760.	0.94
2160.	98.87	5880.	0.93

SOLUTION

Aquifer Model: Leaky
Solution Method: Moench (Case 1)

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
T	6577.4	gal/day/ft
S	0.0003383	
1/B	0.0002272	ft^{-1}
ß/r	0.01049	ft^{-1}
Sw	4.406	
r(w)	0.0007168	ft

K = T/b = 29.47 gal/day/ft²

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
T	6577.4	2984.4	gal/day/ft
S	0.0003383	0.258	
1/B	0.0002272	0.007686	ft^{-1}
ß/r	0.01049	4.089	ft^{-1}
Sw	4.406	34.81	
r(w)	0.0007168	0.05381	ft

K = T/b = 29.47 gal/day/ft²

Parameter Correlations

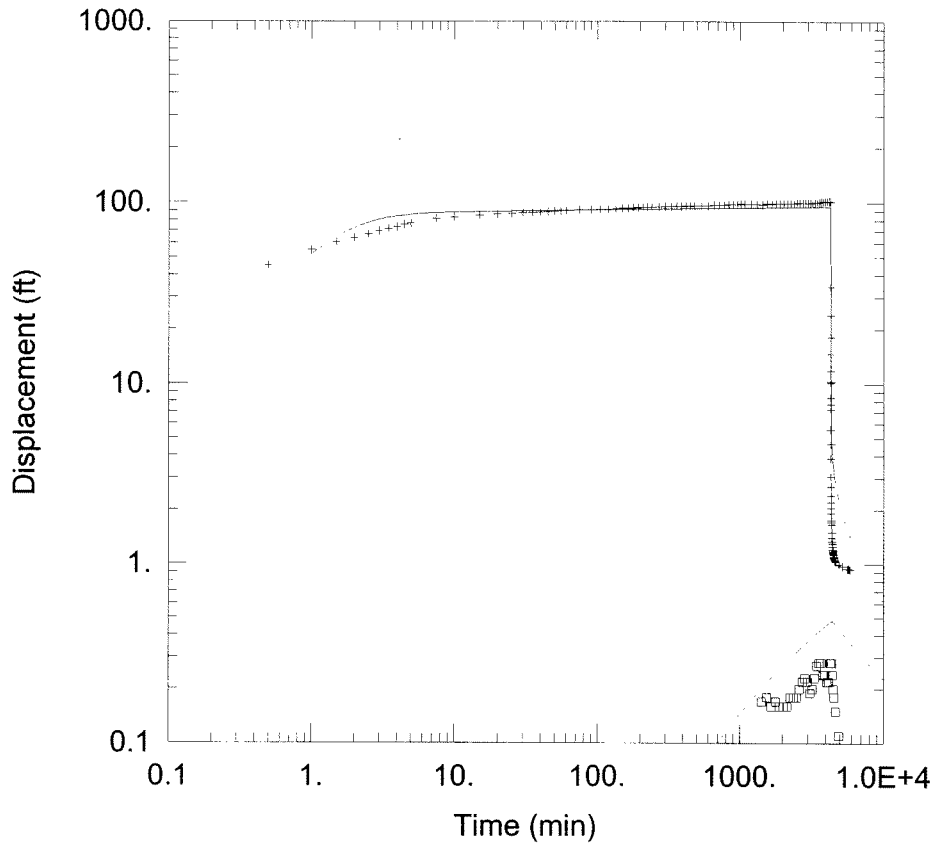
	T	S	1/B	ß/r	Sw	r(w)

T	1.00	0.37	0.10	-0.37	0.27	0.14
S	0.37	1.00	0.89	-1.00	0.92	0.91
1/B	0.10	0.89	1.00	-0.89	0.98	1.00
ß/r	-0.37	-1.00	-0.89	1.00	-0.92	-0.91
Sw	0.27	0.92	0.98	-0.92	1.00	0.99
r(w)	0.14	0.91	1.00	-0.91	0.99	1.00

Residual Statistics

for weighted residuals

Sum of Squares . . . . . 8265.1 ft^2
Variance . . . . . 48.62 ft^2
Std. Deviation . . . . . 6.973 ft
Mean. . . . . -0.3217 ft
No. of Residuals 176
No. of Estimates 6



WELL TEST ANALYSIS

Data Set: C:\...\WME 72-hr Test_02_Moench (2) Leaky_Kz
Date: 02/09/06 Time: 15:14:02

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Well: Well No. 2
Test Date: January 6-10, 2006

SOLUTION

Aquifer Model: Leaky
Solution Method: Moench (Case 2)

T = 1.07E+4 gal/day/ft
S = 0.0001074
1/B = 4.673E-6 ft^{-1}
ß/r = 0.01231 ft^{-1}
Sw = 10.
r(w) = 1.0E-5 ft

AQUIFER DATA

Saturated Thickness: 223.2 ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
PW1(Well #2)	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ OW1(Well #1)	770	0
+ OW2(Well #2)	0	0

Data Set: C:\Program Files\HydroSOLVE\AQTESOLV for Windows Pro 3.5\WME 72-hr Test_02_Moench (2) Leaky_KzKr0.1.aqt
Date: 02/09/06
Time: 15:14:09

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Date: January 6-10, 2006
Test Well: Well No. 2

AQUIFER DATA

Saturated Thickness: 223.2 ft
Anisotropy Ratio (Kz/Kr): 0.1

PUMPING WELL DATA

No. of pumping wells: 1

Pumping Well No. 1: PW1(Well #2)

X Location: 0. ft
Y Location: 0. ft

Casing Radius: 0.3333 ft
Wellbore Radius: 0.5833 ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of pumping periods: 5

Pumping Period Data

Time (min)	Rate (gal/min)	Time (min)	Rate (gal/min)
0.	205.	4.	200.
1.5	200.	4320.5	0.
3.5	195.		

OBSERVATION WELL DATA

No. of observation wells: 2

Observation Well No. 1: OW1(Well #1)

X Location: 770. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 770. ft

Partially Penetrating Well
Depth to Top of Screen: 29.26 ft
Depth to Bottom of Screen: 134.3 ft

No. of Observations: 54

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	0.	2505.	0.18
10.	0.	2625.	0.2
20.	0.	2745.	0.22
30.	0.	2865.	0.23
40.	0.	2985.	0.22
50.	0.	3105.	0.19
60.	0.	3225.	0.2
75.	0.	3345.	0.23
90.	0.	3465.	0.27
160.	0.	3585.	0.28
285.	0.	3705.	0.28
405.	0.	3825.	0.24
525.	0.02	3945.	0.24
645.	0.03	4065.	0.22
765.	0.03	4185.	0.22
1005.	0.05	4305.	0.28
1185.	0.04	4320.	0.28
1305.	0.05	4337.	0.28
1425.	0.17	4390.	0.28
1545.	0.18	4435.	0.24
1665.	0.16	4495.	0.2

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1785.	0.17	4555.	0.18
1905.	0.16	4675.	0.15
2025.	0.16	4915.	0.11
2145.	0.16	5215.	0.07
2265.	0.18	5635.	0.04
2385.	0.18	5875.	0.03

Observation Well No. 2: OW2(Well #2)

X Location: 0. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 0. ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of Observations: 122

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	45.28	2280.	98.87
1.	54.78	2400.	98.87
1.5	60.64	2520.	99.67
2.	63.83	2640.	99.72
2.5	66.76	2760.	99.5
3.	69.59	2880.	99.44
3.5	71.47	3000.	99.58
4.	73.14	3120.	99.79
4.5	75.3	3240.	99.8
5.	76.67	3360.	99.72
7.5	81.65	3480.	99.79
10.	82.87	3600.	100.1
15.	85.	3720.	100.6
20.	86.06	3840.	100.7
25.	86.8	3960.	101.4
30.	87.24	4080.	101.6
35.	87.89	4200.	101.8
40.	87.97	4320.	101.4

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
45.	88.96	4320.5	34.48
50.	89.34	4321.	23.94
55.	89.76	4321.5	18.1
60.	90.	4322.	14.66
75.	90.9	4322.5	11.79
90.	90.9	4323.	10.33
105.	91.26	4323.5	10.14
120.	91.52	4324.	8.39
135.	92.3	4324.5	7.75
150.	92.82	4325.	7.21
165.	93.	4327.5	5.55
180.	93.4	4330.	4.66
195.	93.47	4335.	3.86
210.	93.99	4340.	3.06
225.	94.03	4345.	2.69
240.	94.07	4350.	2.4
270.	94.54	4355.	2.21
300.	94.89	4360.	2.05
330.	95.	4365.	1.92
360.	95.34	4370.	1.75
390.	95.39	4375.	1.71
420.	95.57	4380.	1.66
450.	95.63	4395.	1.5
480.	95.93	4410.	1.4
540.	95.93	4425.	1.34
600.	95.93	4440.	1.3
660.	96.75	4455.	1.25
720.	96.9	4470.	1.2
780.	96.97	4485.	1.18
840.	97.43	4500.	1.16
900.	97.6	4515.	1.14
960.	97.76	4530.	1.12
1020.	98.4	4545.	1.1
1080.	98.13	4560.	1.08
1200.	98.16	4590.	1.06
1320.	97.97	4620.	1.05
1440.	97.26	4650.	1.04
1560.	98.75	4680.	1.03
1680.	97.86	4920.	0.99
1800.	98.69	5220.	0.97

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1920.	98.8	5640.	0.94
2040.	98.97	5760.	0.94
2160.	98.87	5880.	0.93

SOLUTION

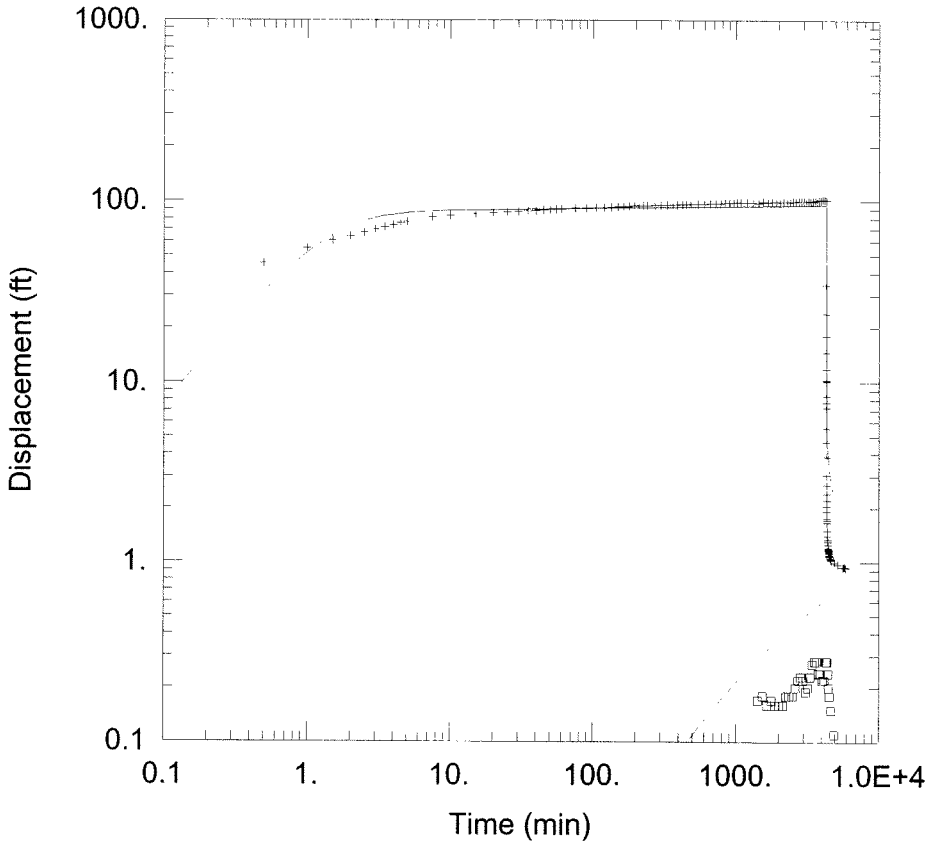
Aquifer Model: Leaky
Solution Method: Moench (Case 2)

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
T	1.07E+4	gal/day/ft
S	0.0001074	
1/B	4.673E-6	ft^{-1}
ß/r	0.01231	ft^{-1}
Sw	10.	
r(w)	1.0E-5	ft

K = T/b = 47.94 gal/day/ft²



WELL TEST ANALYSIS

Data Set: C:\...\WME 72-hr Test_02_Moench (2) Leaky_Kz
Date: 02/09/06 Time: 15:14:39

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Well: Well No. 2
Test Date: January 6-10, 2006

SOLUTION

Aquifer Model: Leaky
Solution Method: Moench (Case 2)

T = 1.076E+4 gal/day/ft
S = 0.0001
1/B = 4.198E-6 ft^{-1}
ß/r = 0.01032 ft^{-1}
Sw = 10.
r(w) = 1.0E-5 ft

AQUIFER DATA

Saturated Thickness: 223.2 ft

Anisotropy Ratio (Kz/Kr): 0.01

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
PW1(Well #2)	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
OW1(Well #1)	770	0
OW2(Well #2)	0	0

Data Set: C:\Program Files\HydroSOLVE\AQTESOLV for Windows Pro 3.5\WME 72-hr Test_02_Moench (2) Leaky_KzKr0.01.aqt
Date: 02/09/06
Time: 15:14:46

PROJECT INFORMATION

Company: Golden State Environmental
Client: White Mountain Estates
Project: G017A
Location: Chalfant Valley
Test Date: January 6-10, 2006
Test Well: Well No. 2

AQUIFER DATA

Saturated Thickness: 223.2 ft
Anisotropy Ratio (Kz/Kr): 0.01

PUMPING WELL DATA

No. of pumping wells: 1

Pumping Well No. 1: PW1(Well #2)

X Location: 0. ft
Y Location: 0. ft

Casing Radius: 0.3333 ft
Wellbore Radius: 0.5833 ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of pumping periods: 5

Pumping Period Data

Time (min)	Rate (gal/min)	Time (min)	Rate (gal/min)
0.	205.	4.	200.
1.5	200.	4320.5	0.
3.5	195.		

OBSERVATION WELL DATA

No. of observation wells: 2

Observation Well No. 1: OW1(Well #1)

X Location: 770. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 770. ft

Partially Penetrating Well
Depth to Top of Screen: 29.26 ft
Depth to Bottom of Screen: 134.3 ft

No. of Observations: 54

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	0.	2505.	0.18
10.	0.	2625.	0.2
20.	0.	2745.	0.22
30.	0.	2865.	0.23
40.	0.	2985.	0.22
50.	0.	3105.	0.19
60.	0.	3225.	0.2
75.	0.	3345.	0.23
90.	0.	3465.	0.27
160.	0.	3585.	0.28
285.	0.	3705.	0.28
405.	0.	3825.	0.24
525.	0.02	3945.	0.24
645.	0.03	4065.	0.22
765.	0.03	4185.	0.22
1005.	0.05	4305.	0.28
1185.	0.04	4320.	0.28
1305.	0.05	4337.	0.28
1425.	0.17	4390.	0.28
1545.	0.18	4435.	0.24
1665.	0.16	4495.	0.2

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1785.	0.17	4555.	0.18
1905.	0.16	4675.	0.15
2025.	0.16	4915.	0.11
2145.	0.16	5215.	0.07
2265.	0.18	5635.	0.04
2385.	0.18	5875.	0.03

Observation Well No. 2: OW2(Well #2)

X Location: 0. ft
Y Location: 0. ft

Radial distance from PW1(Well #2): 0. ft

Partially Penetrating Well
Depth to Top of Screen: 123.2 ft
Depth to Bottom of Screen: 223.2 ft

No. of Observations: 122

Observation Data

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.5	45.28	2280.	98.87
1.	54.78	2400.	98.87
1.5	60.64	2520.	99.67
2.	63.83	2640.	99.72
2.5	66.76	2760.	99.5
3.	69.59	2880.	99.44
3.5	71.47	3000.	99.58
4.	73.14	3120.	99.79
4.5	75.3	3240.	99.8
5.	76.67	3360.	99.72
7.5	81.65	3480.	99.79
10.	82.87	3600.	100.1
15.	85.	3720.	100.6
20.	86.06	3840.	100.7
25.	86.8	3960.	101.4
30.	87.24	4080.	101.6
35.	87.89	4200.	101.8
40.	87.97	4320.	101.4

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
45.	88.96	4320.5	34.48
50.	89.34	4321.	23.94
55.	89.76	4321.5	18.1
60.	90.	4322.	14.66
75.	90.9	4322.5	11.79
90.	90.9	4323.	10.33
105.	91.26	4323.5	10.14
120.	91.52	4324.	8.39
135.	92.3	4324.5	7.75
150.	92.82	4325.	7.21
165.	93.	4327.5	5.55
180.	93.4	4330.	4.66
195.	93.47	4335.	3.86
210.	93.99	4340.	3.06
225.	94.03	4345.	2.69
240.	94.07	4350.	2.4
270.	94.54	4355.	2.21
300.	94.89	4360.	2.05
330.	95.	4365.	1.92
360.	95.34	4370.	1.75
390.	95.39	4375.	1.71
420.	95.57	4380.	1.66
450.	95.63	4395.	1.5
480.	95.93	4410.	1.4
540.	95.93	4425.	1.34
600.	95.93	4440.	1.3
660.	96.75	4455.	1.25
720.	96.9	4470.	1.2
780.	96.97	4485.	1.18
840.	97.43	4500.	1.16
900.	97.6	4515.	1.14
960.	97.76	4530.	1.12
1020.	98.4	4545.	1.1
1080.	98.13	4560.	1.08
1200.	98.16	4590.	1.06
1320.	97.97	4620.	1.05
1440.	97.26	4650.	1.04
1560.	98.75	4680.	1.03
1680.	97.86	4920.	0.99
1800.	98.69	5220.	0.97

Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
1920.	98.8	5640.	0.94
2040.	98.97	5760.	0.94
2160.	98.87	5880.	0.93

SOLUTION

Aquifer Model: Leaky
Solution Method: Moench (Case 2)

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
T	1.076E+4	gal/day/ft
S	0.0001	
1/B	4.198E-6	ft^{-1}
ß/r	0.01032	ft^{-1}
Sw	10.	
r(w)	1.0E-5	ft

K = T/b = 48.2 gal/day/ft²